

more and more into previously unoccupied territory or withdrawing from parts of the former range. In none of these cases will the collecting of one or a few individuals have the slightest effect on the ultimate outcome. The only birds that have ever been seriously affected by direct hunting by man are (1) very large birds, persecuted for their flesh, feathers, or (by game-keepers) to eliminate predation or supposed possible predation; (2) exceptionally gregarious birds, of which whole flocks could be wiped out at once and (3) flightless birds, particularly those that could be driven onto ships to supply fresh meat. In general, these are exactly the types of birds that scientists have *not* collected to any extent.

Attempts to protect rare birds by prohibiting collecting have been almost universal failures. In Arizona, for example, of the four species long prohibited, two have never since appeared in the state while the other two appear irregularly. On the other hand, locally very rare birds without such restrictions have, in all cases, maintained their numbers and indeed often spread out in spite of the loss of occasional individuals to a collector.

If, then, the real object of prohibiting collecting were to aid the birds rather than to hinder science, such prohibition would be limited to breeding or possibly breeding birds during the season of eggs and dependent young, and would include bans on disturbance by non-collectors as well. The real threat to birds today is the constant destruction of their habitat, as every ornithologist knows so well. In the future, then, the usefulness or uselessness of nature conservancies and other conservation groups will surely be judged by their effectiveness in conserving important habitats, not their anti-scientific activities. It is high time that these well-meaning organizations awoke to the fundamental fact that birds are not men nor elephants; an average bird lives two or three years, so that the survival of any population depends on its ability to nest successfully in nearly every year—a function of the habitat and of freedom from disturbance, either by man or by an over abundant natural enemy such as the over numerous gulls now so unwisely protected in some areas.

All of this, then, supports the conclusion that ornithology can and should continue to be a *science*. I would therefore suggest that Fitter's Part I, 'the scientifically most important part', should include *all* the scientific data, *i.e.* all the data based on specimens, from which all non-specimen data are to be *clearly distinguished*. Part II can then contain the speculative species, based on more or less doubtful specimens, probable escapes, introduced birds that have not established themselves, field observations, etc., which the Committee feels to be worth mentioning.

One final comment: the Committee need not worry so greatly about assisted passages from North America. Why, of all the ships plying the world's seas, do only these carry birds, and why only at certain times?

Further notes on some bird/other animal associations in Africa

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During a visit to the Masai Amboseli Game Reserve in Kenya in September 1961, a young elephant feeding in the shallows at the edge of a